

ABSTRACT

The invention provides a battery, which can improve battery characteristics such as high temperature storage characteristics. The battery comprises a battery device, wherein a cathode and an anode are wound with a separator in between. The anode contains an anode material capable of inserting and extracting Li as an anode active material. An electrolytic solution is impregnated in the separator. The electrolytic solution contains a solvent, and an electrolyte salt such as $\text{Li}[\text{B}(\text{CF}_3)_4]$ dissolved in the solvent, which is expressed by a chemical formula of $\text{Li}[\text{B}(\text{RF}_1)(\text{RF}_2)(\text{RF}_3)\text{RF}_4]$. RF_1 , RF_2 , RF_3 , and RF_4 represent a perfluoro alkyl group whose number of fluorine or carbon is from 1 to 12, respectively. Consequently, high temperature storage characteristics are improved.